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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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In re application: Hoffmann, Shlomo

Serial No.: 09/820,146

Filed: 03/28/2001

Group Art Unit: 2634

Examiner: Ha, Dac V.

For: INTERMODULATION DISTORTION IDENTIFICATION AND
QUANTIZATION CIRCUIT FOR A LINEAR AMPLIFIER
SYSTEM

RESPONSE

Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

This paper is responsive to the Office Action mailed on September 21, 2004.

Applicant respectfully traverses the rejections under 35 U.S.C. §103. The Examiner's proposed combination of the *Ghanadan, et al.* and *Carney, et al.* references does not establish a *prima facie* case of obviousness. Even if there were sufficient motivation for combining those references, the result is not the same as Applicant's claimed invention.

The *Ghanadan, et al.* reference does not use frequency increments, quantizing or quantization. Therefore, even if the combination were made, it is not the same as the claimed invention. Additionally, claim 8 specifically recites generating an intermediate frequency signal. That is not done in the *Ghanadan, et al.* reference.

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The *Ghanadan, et al.* reference is an example of the prior art techniques that use a feed forward system that extracts the intermodulation distortion signals and inverts the phase of those signals to cancel the problematic signals as described in the background section of Applicant's specification. The claimed approach is patentably different.

Quantizing an output of a multiple carrier linear amplifier radio frequency signal and using frequency increments for nulling the distortion in the discrete or quantized portions of the signal is not shown, nor suggested in anyway by the *Ghanadan, et al.* reference. Instead, that reference uses a feed forward technique to cancel distortion in an entire signal, which is not the same as using frequency increments and quantizing a signal into discrete components and nulling the distortion associated with those components. Applicant respectfully submits that this case is in condition for allowance.

Respectfully submitted,

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Dated: November 16, 2004

CERTIFICATE OF FACSIMILE

I hereby certify that this correspondence is being facsimile transmitted to the Patent and Trademark Office (Fax No. (703) 872-9306) on 11-16-04


Theresa M. Palmateer

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